

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/CA2005/000146

## A. CLASSIFICATION OF SUBJECT MATTER

IPC<sup>7</sup>: A42B-3/04 A63B-69/00 A63B-71/10 G01C-9/00 G08B-21/02

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC<sup>7</sup>: A42B-3/04 A61B-5/00 A61B-5/103 A63B-69/00 A63B-71/10 G01C-9/00 G08B-21/02 G08B-21/00

CPC: 33/113 2/71 to 2/73.1 273/70 to 273/74 273/77

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic database(s) consulted during the international search (name of database(s) and, where practicable, search terms used)

WEST, ESP@CENET, Canadian Patent Database, and Internet

Keywords: helmet, sensor, position and safety

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No(s).
X	US 6331168 B1 (CREATIVE SPORTS TECHNOLOGIES, INC.) December 18, 2001 Whole document	1-20
X	US 5916181 B1 (CREATIVE SPORTS TECHNOLOGIES, INC.) June 29, 1999 Whole document	1-20
A	US 2002060633 A1 (CRISCO, III et al.) May 23, 2002 Whole document	1-20

☐ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

* Special categories of cited documents:	"I" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E" earlier application or patent but published on or after the international filing date	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&" document member of the same patent family
"O" document referring to an oral disclosure, use, exhibition or other means	
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search

30 March 2005 (30-03-2005)

Date of mailing of the international search report

15 April 2005 (15-04-2005)

Name and mailing address of the ISA/CA  
Canadian Intellectual Property Office  
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Patent Document Cited in Search Report	Publication Date	Patent Family Member(s)	Publication Date
US6331168 B1	18-12-2001	AU734844 B2	21-06-2001
		AU1199299 A	17-05-1999
		AU3315201 A	17-09-2001
		CA2310817 A1	06-05-1999
		CA2402161 A1	13-09-2001
		EP1030595 A1	30-08-2000
		EP1261275 A1	04-12-2002
		JP2001520903T T	06-11-2001
		JP2003525677T T	02-09-2003
		US5916181 A	29-06-1999
		US6048324 A	11-04-2000
		US6331168 B1	18-12-2001
		US6730047 B2	04-05-2004
		US2004171969 A1	02-09-2004
		US2004225236 A1	11-11-2004
		WO0166006 A1	13-09-2001
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		AU3315201 A	17-09-2001
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		JP2003525677T T	02-09-2003
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		US2004171969 A1	02-09-2004
		US2004225236 A1	11-11-2004
		WO0166006 A1	13-09-2001
		WO9921477 A1	06-05-1999
US2002060633 A1	23-05-2002	US6826509 B2	30-11-2004

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## Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of the first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons :

1. ☐ Claim Nos. :  
because they relate to subject matter not required to be searched by this Authority, namely :
  
2. ☐ Claim Nos. :  
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically :
  
3. ☐ Claim Nos. :  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows :

**Group A:** Claims 1-14 are directed to an electronic safety device comprising a position sensor for sensing the position of the head of a user and providing a signal indicative of the head position, a processor connectable to the position sensor for receiving the indicative signal, for determining if the head is in an unsafe position and for producing a signal qualifying the determination and an indicator connectable to the processor for receiving the signal qualifying the determination and subsequently indicating, and a method for using such device;

**Group B:** Claims 15-18 are directed to a method for operating an electronic safety device comprising the steps of determining whether or not the device is in use and switching on or maintaining an active mode for the device if it is determined that the device is in use; and

**Group C:** Claims 19 and 20 are directed to a sport-specific helmet comprising a shell providing a main cavity, a layer of padding lining the inside of the main cavity, and an electronic device for determining and indicating that a head is in an unsafe position.

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
  
2. ☒ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
  
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claim Nos. :
  
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claim Nos. :

**Remark on Protest** ☐ The additional search fees were accompanied by the applicant's protest.

☐ No protest accompanied the payment of additional search fees.